

## Monthly Wholesale Trade

Sales and Inventories
July 1999

BW/99-7 Issued September 1999

U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU

# MONTHLY WHOLESALE TRADE: SALES AND INVENTORIES JULY 1999

**Sales.** July 1999 sales of merchant wholesalers, after adjustment for seasonal variations and trading-day differences but not for price changes, were \$227.3 billion, down 0.2 percent (+/- 0.4%) from the revised June level and were 7.4 percent (+/- 1.4%) above the July 1998 level. The June preliminary estimate was revised downward \$0.3 billion or 0.1 percent. Among durable goods, sales of furniture and home furnishings were up 3.5 percent from last month and motor vehicles and automotive equipment increased 2.4 percent. Among nondurable goods, sales of petroleum and petroleum products increased 4.9 percent from June, while farm-product raw materials were down 4.4 percent.

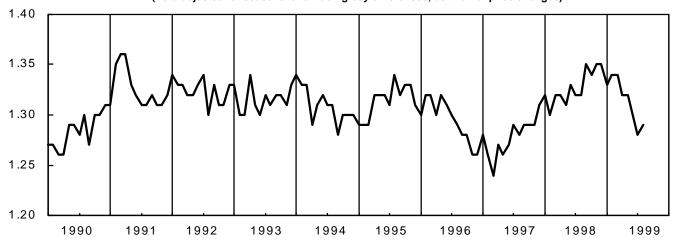
**Inventories.** Total inventories of merchant wholesalers, after adjustment for seasonal variations but not for price changes, were \$293.9 billion at the end of July, up 0.9 percent (+/- 0.4%) from the revised June level and were 5.3 percent (+/- 1.2%) above July 1998. The June preliminary estimate was revised upward \$0.4 billion or 0.1 percent. End-of-month inventories of durable goods increased 0.8 percent (+/-0.5%) from last

month and were 5.5 percent (+/-1.6%) above July 1998. Compared to last month, inventories of electrical goods increased 3.4 percent and lumber and other construction materials rose 3.0 percent. End-of-month inventories of nondurable goods increased 1.0 percent (+/-0.7%) from June and were 4.9 percent (+/-2.3%) above last year. Inventories of groceries and related products grew 2.3 percent from last month and drugs, drug proprietaries, and druggists' sundries were up 1.2 percent.

**Inventories/Sales Ratio.** The July inventories/sales ratio for merchant wholesalers, based on seasonally adjusted data, was 1.29. The July 1998 ratio was 1.32.

Data in this report are based on a sample and, therefore, are subject to sampling and nonsampling variability. A discussion of the reliability of the data and general survey methodology appears in BW/98-A Current Business Reports.

### Monthly Inventories/Sales Ratios of Merchant Wholesalers: 1990 to 1999 (Data adjusted for seasonal and trading-day differences, but not for price changes)



Monthly Wholesale Trade for August is scheduled to be released October 8, 1999, at 10:00 a.m.

Address inquiries concerning this report to Service Sector Statistics Division, U.S. Census Bureau, Washington, DC 20233, or call Ronald Piencykoski, 301-457-2779 or 301-457-2764. For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402.

This report is available on day of issue through the Department of Commerce's online Economic Bulletin Board (202-482-1986). The data are also available on the Internet - http://www.census.gov/svsd/www/mwts.html.

Table 1. Estimated Monthly Sales, Inventories, and Inventories/Sales Ratios of Merchant Wholesalers: 1999 and 1998

[In millions of dollars]

fill millio	ons of dollars]										1	1		/1		
		Sales					Inventories						Inventories/sales			
_		Monthly			Percent change			Monthly			Percent change			ratios		
SIC <sup>1</sup>	Kind of	Jul.	Jun.	Jul.	Jul./	Jun./	Jul. 99	Jul.	Jun.	Jul.	Jul./	Jun./	Jul. 99	Jul.	Jun.	Jul.
code	Business	1999	1999	1998	Jun.	May	Jul. 98	1999	1999	1998	Jun.	May	Jul. 98	1999	1999	1998
		(p)	(r)	(r)				(p)	(r)	(r)				(p)	(r)	(r)
Adjus	sted <sup>2</sup>															
	U.S. Total	227,299	227,863	211,665	-0.2	1.8	7.4	293,934	291,367	279,067	0.9	0.4	5.3	1.29	1.28	1.32
50	Durable	121,967	121,785	114,137	0.1	1.4	6.9	192,439	190,837	182,331	0.8	0.6	5.5	1.58	1.57	1.60
501	Automotive	19,421	18,961	16,932	2.4	2.4	14.7	27,973	27,678	25,028	1.1	0.3	11.8	1.44	1.46	1.48
502	Furniture	4,270	4,124	3,980	3.5	1.5	7.3	6,197	6,085	6,026	1.8	2.1	2.8	1.45	1.48	1.51
503	Lumber	8,966	8,827	7,761	1.6	2.2	15.5	8,961	8,700	8,310	3.0	0.2	7.8	1.00	0.99	1.07
504	Prof. equip.	22,701	22,708	21,496	0.0	0.5	5.6	25,417	25,480	27,116	-0.2	0.8	-6.3	1.12	1.12	1.26
505	Metals	7,660	7,622	8,140	0.5	0.7	-5.9	12,842	12,938	13,226	-0.7	0.0	-2.9	1.68	1.70	1.62
506	Electrical	19,434	19,427	17,604	0.0	2.3	10.4	27,422	26,530	25,532	3.4	0.5	7.4	1.41	1.37	1.45
507	Hardware	6,718	6,791	6,516	-1.1	-2.4	3.1	13,390	13,300	13,191	0.7	0.8	1.5	1.99	1.96	2.02
508	Machinery	20,309	20,625	20,177	-1.5	1.8	0.7	52,307	52,040	47,300	0.5	1.0	10.6	2.58	2.52	2.34
509	Other Durable	12,488	12,700	11,531	-1.7	1.8	8.3	17,930	18,086	16,602	-0.9	-0.2	8.0	1.44	1.42	1.44
51	Nondurable	105,332	106,078	97,528	-0.7	2.1	8.0	101,495	100,530	96,736	1.0	0.0	4.9	0.96	0.95	0.99
511	Paper	8,183	8,247	7,518	-0.8	0.6	8.8	9,914	9,887	9,357	0.3	2.1	6.0	1.21	1.20	1.24
512	Drugs	12,253	12,377	10,372	-1.0	2.4	18.1	17,431	17,217	14,300	1.2	2.7	21.9	1.42	1.39	1.38
513	Apparel	7,552	7,772	7,012	-2.8	-1.8	7.7	11,502	11,517	12,618	-0.1	-3.1	-8.8	1.52	1.48	1.80
514	Groceries	29,853	29,696	29,213	0.5	-1.5	2.2	18,104	17,693	17,136	2.3	-1.5	5.6	0.61	0.60	0.59
515	Farm-products	8,525	8,916	8,802	-4.4	3.2	-3.1	10,789	10,768	9,845	0.2	-2.6	9.6	1.27	1.21	1.12
516	Chemicals	4,428	4,473	4,533	-1.0	4.2	-2.3	4,809	4,771	4,872	0.8	0.1	-1.3	1.09	1.07	1.07
517	Petroleum	12,947	12,344	10,271	4.9	3.5	26.1	4,131	4,116	4,285	0.4	6.4	-3.6	0.32	0.33	0.42
518	Alcohol	5,405	5,535	5,108	-2.3	1.6	5.8	6,540	6,439	5,793	1.6	-4.5	12.9	1.21	1.16	1.13
519	Other Nondur.	16,186	16,718	14,699	-3.2	10.1	10.1	18,275	18,122	18,530	0.8	1.9	-1.4	1.13	1.08	1.26
Not Adjusted														Sale	es to c	late
1101 1	 															1998
	U.S. Total	225,372	237,525	214,065	-5.1	7.1	5.3	292,310	287,924	277,765	1.5	-0.1	5.2	1,533,1	_	63,050
50	Durable	121,609	128,643	115,715	-5.5	9.8	5.1	194,608	191,607	184,468	1.6	0.2	5.5	821,4	72 7	85,199
501	Automotive	19,673	20,175	17,305	-2.5	8.7	13.7	27,749	27,346	24,828	1.5	-1.5	11.8	130,	244	117,024
502	Furniture	4,176	4,157	3,956	0.5	5.6	5.6	6,358	6,182	6,183	2.8	4.2	2.8		591	27,288
503	Lumber	9,674	9,913	8,591	-2.4	12.7	12.6	9,221	8,987	8,526	2.6	0.7	8.2	58,		52,123
504	Prof. equip.	22,247	24,161	21,539	-7.9	14.4	3.3	25,697	25,327	27,441	1.5	0.6	-6.4	151,		146,364
505	Metals	7,438	8,034	8,042	-7.4	7.9	-7.5	12,958	12,977	13,345	-0.1	-0.1	-2.9	54,	167	57,519
506	Electrical	19,415	20,107	17,991	-3.4	115	7.9	28,190	27,061	26,247	4.2	1.9	7.4	128,	657	120,360
507	Hardware	7,168	7,538	7,096	-4.9	10.0	1.0	13,444	13,486	13,244	-0.3	-0.2	1.5	47,	029	44,840
508	Machinery	19,842	21,883	20,056	-9.3	6.5	-1.1	52,882	52,300	47,820	1.1	-0.3	10.6	14 1,	777	142,554
509	Other Durable	11,976	12,675	11,139	-5.5	7.1	7.5	18,109	17,941	16,834	0.9	-0.3	7.6	81,	460	77,127
51	Nondurable	103,763	108,882	98,350	-4.7	4.0	5.5	97,702	96,317	93,297	1.4	-0.7	4.7	7 11, 7	06 6	77,851
511	Paper	7,798	8,280	7,428	-5.8	8.1	5.0	9,924	9,699	9,366	2.3	2.3	6.0	54,	996	51,011
512	Drugs	11,812	12,352	10,331	-4.4	8.2	14.3	17,204	16,683	14,114	3.1	4.2	21.9	81,	974	70,107
513	Apparel	7,824	7,788	7,461	0.5	18.1	4.9	11,847	11,701	12,997	1.2	1.0	-8.8	52,	519	50,056
514	Groceries	30,569	30,438	30,235	0.4	-2.2	1.1	18,068	17,481	17,102	3.4	-2.1	5.6	205,	903	199,134
515	Farm-products	7,357	8,497	7,878	-13.4	3.1	-6.6	7,962	8,324	7,285	-4.3	-9.3	9.3	57,	462	62,394
516	Chemicals	4,415	4,884	4,628	-9.6	11.7	-4.6	4,838	4,738	4,887	2.1	-1.9	-1.0	30,		32,520
517	Petroleum	12,753	12,159	10,363	4.9	2.8	23.1	4,011	3,939	4,169	1.8	1.8	-3.8	77,		71,136
518	Alcohol	5,551		5,445	-9.7	10.5	1.9	6,651	6,536	5,903	1.8	0.2	12.7	36,		34,004
519	Other Nondur.	15,684	18,340	14,581	-14.5	2.5	7.6	17,197	17,216	17,474	-0.1	-2.7	-1.6	113,	674	107,489

p Preliminary estimate. r Revised.

<sup>1</sup> For a full description of the SIC codes shown above, see the "1987 Standard Industrial Classification Manual" or the Current Business Reports "Annual Benchmark Report for Wholesale Trade" publication.

<sup>2</sup> Data adjusted for seasonal variations and, in the case of sales, also for trading-day differences. See Table 3 for seasonal adjustment factors used

Table 2. Coefficients of Variation and Standard Error for Sales and Inventories

	Kind of Business	Coeffici	ents of v (x 1		for level	Sta	ındard er	ror for tro	end	Coefficients of variation for level (x 100)		Standard error for trend
SIC code		Preliminary estimates		Final estimates		Ratio of two consecutive months		Year-to-year estimates		Cumulative sales estimates		Current year cumulative
		Sales	Inv.	Sales	Inv.	Sales	Inv.	Sales	Inv.	Current	Previous	to
		M edian	M edian	M edian	M edian	M edian	M edian	M edian	M edian	year	year	previous year cumulative
`	U.S. Total	1.2	1.5	1.1	1.4	0.4	0.2	0.8	0.8	1.3	1.1	0.7
50	Durable	1.8	2.5	1.8	2.4	0.6	0.3	1.1	1.0	1.8	2.2	1.0
501	Automotive	4.4	4.8	4.3	4.8	1.0	0.9	2.3	3.0	4.4	5.1	2.1
502	Furniture	6.5	7.9	6.4	7.8	2.0	1.0	2.7	2.5	6.1	6.6	1.5
503	Lumber	5.5	5.3	5.3	5.3	1.3	0.7	2.1	2.6	5.7	5.7	1.4
	Prof. equip.	6.3	7.0	6.0	7.0	1.4	0.7	3.3	2.1	6.6	5.5	3.0
505	Metals	5.0	10.1	5.0	10.0	1.1	0.8	1.6	2.8	4.9	4.8	0.8
506	E lectrical	5.6	7.1	5.7	7.0	1.3	0.6	2.3	2.3	5.6	6.3	2.0
507	Hardware	5.4	6.5	5.5	6.3	1.3	0.7	1.6	2.1	5.7	5.7	1.1
508	Machinery	6.2	6.7	6.3	6.6	2.1	0.6	2.6	2.0	6.0	6.8	2.0
509	Other Durable	6.3	9.4	6.4	9.2	1.4	0.9	2.1	2.4	6.4	6.1	1.7
51	Nondurable	2.0	2.3	1.9	2.2	0.6	0.4	1.0	1.3	2.0	1.7	0.6
511	Paper	5.0	5.1	5.0	5.1	1.1	0.6	1.8	1.7	5.4	5.1	1.0
512	Drugs	6.3	4.8	6.3	4.8	1.0	0.6	2.2	1.6	6.2	6.8	1.2
513	Apparel	5.4	7.3	5.0	7.5	2.2	1.1	3.0	2.5	4.7	4.5	1.8
514	Groceries	3.0	4.9	3.0	4.9	0.7	0.6	1.1	1.3	3.0	3.0	0.8
515	Farm-products		8.6	6.8	8.6	2.3	1.6	2.9	4.2	6.4	5.7	2.3
516	Chemicals	5.6	6.3	5.7	6.4	1.3	0.7	1.9	2.2	5.3	5.8	1.1
517	Petroleum	6.9	14.0	6.9	14.0	1.0	1.3	1.7	1.9	6.9	7.3	1.4
518	Alcohol	6.2	8.6	6.3	8.7	1.5	1.4	1.5	8.8	6.0	6.3	1.3
519	Other Nondur.	6.4	7.7	6.5	7.6	1.9	1.2	4.1	4.1	6.7	5.5	2.8

Note: The median measures of variability are based on the most recent 12 months of data.

### Sample Design and Reliability of Data

There are two types of errors possible in an estimate based on a sample survey: sampling and nonsampling.

Sampling errors occur because observations are made on a sample, not on the entire population, and different samples could have led to different estimates. Standard errors and coefficients of variation, as calculated for this report, are measures of sampling variation. The margin of sampling error, as used on page 1, gives a range about the estimate which is a 90% confidence interval. If, for example, the trend estimate is up 1.2% and the standard error is 0.9%, then the margin of sampling error is  $\pm 1.65$  x 0.9% or  $\pm 1.5\%$ , and the 90% confidence interval is -0.3% to +2.7%. If the interval contains 0, it cannot be stated with certainty whether there was an increase or decrease. For monthly level, the coefficient of variation (CV) is given. The resulting confidence interval is the estimated value  $\pm 1.65$  x CV x (the estimated value).

Nonsampling errors are usually attributed to many possible sources: (1) coverage error - failure to accurately represent all population units in the sample,

(2) inability to obtain information about all sample cases, (3) response errors, possibly due to definitional difficulties or misreporting, (4) mistakes in recording or coding the data obtained, and (5) other errors of collection or processing, or in imputing for missing or inconsistent data. Coverage error has an effect on the accuracy of estimates for this survey to the extent that the administrative records system, which forms the basis of our survey universe frame, does not contain all legal businesses. A major source of nonsampling error in the published estimates is due to the need to impute data for nonrespondents and for late and inconsistent reports. For all kinds of businesses combined, imputed data amount to about 31 percent of the total monthly wholesale sales estimates and 32 percent of the total monthly wholesale inventories estimates.

Nonsampling errors also occur in complete censuses. Although no direct measures of these errors have been obtained, precautionary steps were taken in all phases of the collection, processing, and tabulation of the data to minimize their influence.

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Table 3. Seasonal Adjustment Factors for Sales and Inventories of Merchant Wholesalers

SIC	Kind of			Sa	les								
code	Business	1999					1998		1998				
		Aug.	Jul.r	Jun.r	May	Apr.	Jul.r	Aug.	Jul.r	Jun.r	May	Apr.	Jul.r
·	U.S. Total <sup>1</sup>	1.017	0.989	1.043	0.991	1.010	1.009	0.981	0.993	0.985	0.994	1.006	0.993
50	Durable	1.025	0.996	1.058	0.976	1.007	1.017	1.002	1.011	1.001	1.009	1.009	1.012
501	Automotive	0.996	1.013	1.064	1.002	1.046	1.022	0.976	0.992	0.988	1.006	1.015	0.992
502	Furniture	1.034	0.978	1.008	0.969	1.016	0.994	1.039	1.026	1.016	0.996	0.974	1.026
503	Lumber	1.124	1.079	1.123	1.018	1.019	1.107	1.007	1.029	1.033	1.028	1.028	1.026
504	Prof. equip.	1.003	0.980	1.064	0.935	0.976	1.002	1.001	1.011	0.994	0.996	1.007	1.012
505	Metals	1.025	0.971	1.054	0.984	1.031	0.988	1.001	1.009	1.003	1.004	1.005	1.009
506	E lectrical	1.044	0.999	1.035	0.950	0.967	1.022	1.027	1.028	1.020	1.006	0.996	1.028
507	Hardware	1.050	1.067	1.110	0.985	0.991	1.089	1.003	1.004	1.014	1.024	1.021	1.004
508	Machinery	1.003	0.977	1.061	1.014	1.063	0.994	0.998	1.011	1.005	1.018	1.020	1.011
509	Other Durable	1.037	0.959	0.998	0.949	0.964	0.966	1.024	1.010	0.992	0.993	0.983	1.014
51	Nondurable	1.007	0.985	1.028	1.009	1.015	1.006	0.941	0.959	0.956	0.965	1.009	0.960
511	Paper	1.057	0.953	1.004	0.935	0.996	0.988	0.978	1.001	0.981	0.979	1.008	1.001
512	Drugs	0.993	0.964	0.998	0.944	1.010	0.996	0.972	0.987	0.969	0.955	1.006	0.987
513	Apparel	1.106	1.036	1.002	0.833	0.960	1.064	1.019	1.030	1.016	0.975	0.962	1.030
514	Groceries	1.014	1.024	1.025	1.032	0.984	1.035	0.982	0.998	0.988	0.994	0.987	0.998
515	Farm-products	0.937	0.863	0.953	0.954	0.943	0.895	0.696	0.738	0.773	0.830	0.991	0.740
516	Chemicals	1.032	0.997	1.092	1.019	1.020	1.021	1.003	1.006	0.993	1.014	1.002	1.003
517	Petroleum	1.003	0.985	0.985	0.991	1.028	1.009	0.995	0.971	0.957	1.000	0.992	0.973
518	Alcohol	1.054	1.027	1.110	1.020	1.000	1.066	1.000	1.017	1.015	0.967	0.993	1.019
<u>519</u>	Other Nondur.	0.965	0.969	1.097	1.178	1.154	0.992	0.922	0.941	0.950	0.995	1.058	0.943



#### r Revised.

1 Adjusted sales and inventories data shown in Table 1 are obtained by dividing the unadjusted data by the adjustment factors shown above for the corresponding group. Adjusted data for the totals are obtained by adding the durable and nondurable goods. Seasonal factors shown for the totals will provide an approximation of the adjusted estimates, but may show small differences from the published data.

Note: The seasonal factors shown have been computed based on monthly estimates through the current month preliminary estimates.